NEWS IN BRIEF

Sporry Rand joint venture?

FOLLOWING the successes of Saub-Univac in Scandinavia and Nippon Univac in Japan, Sperry Rand Corp is considering a smilar venture proposed by a "large company" in another country, chairman and chief executive J. Paul Lyet has

vac wanted.

Two other prime candidates are Olivetti in Italy and Philips in

Northern HO

AN office to house the sales, software and engineering staff that support its customers in the North of England and Scotland has been opened by Porkin-Altrincham, Cheshire. The office is the company's Northern re-gion houdquarters.

Englineers' access

CHEMICAL engineers interested in Sie Institute of Chemical Engineers Physical Property Data Service PPDS can now access it via the Nottingham-based bureau, Gamma Associates, which is running PPDS on its Digital Equipment PDP-11/70 minicomputer. PPDS includes a databank of 17 constant and 15 variable properties of more than 400 compounds.

First in NW

THE first IBM System 34 to be delivered in North West England has gone to a newly-formed ubsidiary of G. H. Brownbill Ltd, the Warrington-based software house.

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CHANFIELD

Winning views of life in year 2000

were presented by readers who entered the Dataskil-Computer Weekly essay competition. The object was to forocast how computers and communications would be used and how these techniques would impact on

society.
The sundard of entry was high and the judges had a hard task selecting the winners (CW, June 8). Last week, when he presented the prizes, William Woollard of the BBC's Tomorrow's World series, who was one of the judges, commented on the wide range of ideas that had been developed. He said such competitions were important because they gave people involved in many areas of the information industry the opportunity

to express their views.

Here (left to right) joint first prize-winner, Bryn
Jones discusses the assays, with William Woollard,
and Tony Thornton and John Finnie who each received
one of the «pecial Computer Weakly prizes.



selection of relevant PTFs will an operational problem has

Univac wood Siemens for several years, but a spokesman in Munich declared that Siemens was no longer interested in joint ventures of the kind Univac wood of the kind Univac w simplified by IBM move

not. In either gase, the pro- innovporation of fixes only when

By Peter Hewitt

IN a move which will simplify the job of maintaining operating which fixes he needs. systems, IBM is to introduce a Elmer Data Systems at new method of distributing Program Temporary Fixes to OS

Starting in August, VSI, VS2 and MVS users in the UK will receive monthly PTF tapes uniquely configured to their instal-led System Control Program and Sciectable Unit fora; at licensed

programs. Each tape will in effect contain only those fixes which are relevant to the destination in-

The service, which IBM refers to as the direct distribution of customised PTFs, will be based on the register of active pro-grams maintained for each customer in the European Program

Library files. Similar systems will operate in the US and in the major

European countries. The system will be particularly appreciated by MVS sites, where the possible permutations of SUs can make it very difficult

Telex: 890138

SERVICES

Low-cost voice transmission system developed at Bath A REVOLUTIONARY voice digitising method that could squeeze four or five times as time interval measured. The

for a customer to determine

typically a lengthy job requiring dedicated access to the machine

and, although some sites select from current distribution tapes

only those fixes that they need,

many follow a policy of applying

every fix, whether relevant of

The application of fixes is

where it is sufficiently advanced forit to be the subject of a patent application by the National Research and Development Council, It could cost ten times less than existing low bit rate

voice encoding methods. Called Time Encoded Speech. he technique assumes that voice information is made up of a small number of basic wave shapes and that waves that have the same basic shape sound the same to the human ear, even though they differ in amplitude

many calls on to the same line as shape and time are each pulse code modulation, is being assigned a numerical value and £100, according to Brigadier daveloped at Bath University, the two numbers form one of a King. group of different sound "sym-

> At the receive end each symbol is decoded and the appropriate waveform generated. Work on Time Encoded Speech at Bath has been led by Professor William Gosling, of the School of Electronic Engineering, and Brigadier Reginald King, now army

By establishing a monthly

update cycle, the new system

may also encourage the more

speedy application of fixes. In

view of the volume of work,

some sites have scheduled the

telecommunications director at the Ministry of Defence. Brigadier King told Computer Weekly that TES transmission was being simulated at Bath: At the transmit end, the shape of the wave between each con-

Happiness is a computer date

A STODY by the West German government has reported that marriages of couples introduced through a computer dating service as more likely to be successful than others. Over a ten-year period, 3,000 hiusbands and wives, holf of whom her through a computerised marriage bureau in Hamburg, were saked, "Are you happy in your marriage?" Of the computer couples 40% sold they were "very happy," while 18% of the others sold the same.



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Post Office to relax specs for System)

he White Paper on the Pos Office the chairman, Sir Willen Barlow, said there would be more tolerance on specifications for the whole range of equip-ment bought for System X. Sir William said that oversear

marketing would be done by t companies concerned, but the strate the equipment to potential buyers and offer consul ancy services.

We want to do all we can to help exports," he said.
This relaxation of

ease the workload of system arisen.

The move is unlikely to affect traditionally rigid Post Offi policy came as the corpora announced its results for the the position of plug-compatible users, as full PTF tapes continue months up to March this yet showing a surplus of CSS rd. lion of which £325 million we Amdahl aiready delivers taipulled in by the telecommunication lored PTF tapes to its users, telephone services.

Commenting on the plan George McKendrick of the rating the company's own modifications. stitute of Administration Management, who co-order its Telecommunicate Managers Division evident the Carter Committee, describe

the System X relaxation at step forward. The White Paper also gave details of an agreement between the government and the Port Office under which real costs telecommunications are to b reduced five per cent over years. This is to be achieved a the same time as showing as per cent return on net assets of

the Telecommunications Dh

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Briefing

Unions' worry over micros

FOUR major unions have tabled resolutions relating to the mnact of microelectronics for the TUC Congress in September. This has delayed until early next year the preparation of a major report by the TUC on the sub-

The resolutions from AUEW/ Tass, the Society of Civil and Public Servants, the Post Office Engineering Union and National Union of Bank Employees cover a wide spectrum of the issues involved, including requests for government assistance to include software, and calls from all the unions for better government research and planning to cope with the social consequences of creating and using advanced technology.

Targets for action

CIVIL Service computer centres are believed to be among targets of the Society of Civil and Public Servants for industrial action if the government does not imple-ment in 1979 the findings of the independent pay research unit, which provides statistics used in Civil Service pay negotiations.

AN EXTRA 100,000 data processing professionals would be ne-eded over the next 10 years, including 1,000 more computer graduates a year over and above the 2,000 currently being turned out by UK higher education institutions. This was the view expressed last week by Professor Mike Pitteway of Brunel University at the announcement of Brunel's microprocessor development laboratory.

Swansea halted

THE three ICL System 4s at the Swansea Driving and Vehicle Licensing Centre have been shut down for over a week because neintenance engineers are legisling to service the centre's

comp's new classic line of multcomputers in the US. Called the 7870, it takes up to one Magaword of two-way inter-letyed 16-bit memory but Olierwise is similar to the only oner model in the line so far introduced, the 7860. Molicollegs Ken Harple calks to

OLA for Calor

thippin a 2560,060 deal. Might of the pink a 2560,060 deal. Might of the pink of the pink

IF returned to power at the next elections, a And Hastings' Tory MP Kenneth Warren, Conservative government would honour all who has taken a particular interest in the commitments entered into at that time for computer industry, commented that assistance supporting the UK microelectronics industry, from government sources for new industries according to the Party's industry spokesman was always welcome,

Sir Keith Joseph.

Speaking after the latest announcement of support gives a cachet of quality to companies' endeavours when they try to export support for the semiconductor industry by panies' endeavours when they try to export industry Minister Eric Varley — £70 million new ideas," he said. Making it clear that official Tory policy was dustry (see page 3) — Sir Keith told Computer

Thursday, August 3, 1978

Tories to honour Labour commitments

all expenditure proposals from the present should be supported, £70 million over five years government but would not go back on any was enough.

"There is a division of thought on whether the government should be involved in high-

taking shareholdings in companies: its job should be to encourage rather than get involved," he said.

Price 18p

The latest Dol plans for support of the UK microelectronics industry were enthusiastically welcomed by Dr Gerry Thomas, general manager of ITT Semiconductors at Sideup. which is to start production of 64K RAM not yet crystallised on the subject, he wondered

samples later this year.
"We are at an advanced stage of discussion with the Department for support under both the development and the production schemes," he told Computer Weekly. "I think the Department's plans are extremely well-founded." • Government micro plans, page 3.



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not go back on any

BOC's £10m IBA's Oracle freed from its chains move into minis

Weekly that the Conservatives would review whether, if it was decided that the industry

has decided to spend £10 million over the next year on acquisitions that could make it a major force in the minicomputer sys-tems business both in the UK and overseas.

Number 612

over five years from the Department of In-

specific commitments made by the govern-

Chief executive of the BOC computer services division, Brian Mills, told Computer Weekly that in the short term BOC was mainly interested in taking over UK systems houses, but that its intention was also to acquire firms on the Continent

and in the US.

Mills pointed out that BOC already had a presence on the Continent on the bureau services side, through the BOC Datasoive office in the Hague and the Datastream offices in Frankfurt and Rotterdam. Datastream is the financial service acquired by BOC about 18

months ago. Another likely development at BOC, according to Mills, is the establishment of a microprocessor systems house, but this would be achieved by acquiring suitable people and building a

Tracking down long-stayers

THE Home Office is planning to introduce a computer to help track down overseas visitors who gverately their pennitied time in the UK. This would eatch people who try to get around immigration controls by entering the bountry on a short-stay visit.

The immigration Service already carries out checks by hand on a random basis. The computer will allow this to be much more thorough.

US group seeks Euro links

munications Users in the US is keen to create links with user groups in Europe that share its interest in matters like intern-

ations, in support of a pay claim by munications standards.

Sovernment blue collar workers.

The executive director of hatten Bans with shalled the issuing of driving ADCU. Dr William Saxton, told operations on both sides of the documents.

Adantic interested parties should consistency with domestic legislation, such as the new Communications Act which will dramatically affect.

Atlantic Interested parties should consistency which will dramatically affect.

John P. Compitello, c/o ADCU.

John P. Compitello, c/o ADCU.

PO Box 1184, New York, NY.

of word processing and selection munications are featured in this

munications are featured in this week's International section (pages 18/23). The Canada Development Corp has come to the rescue of the foundering Wordplex organisation and is merging it with AES to form a group that could have considerable potential in the smaller (page 18). Project Prejude gove a glimpas of what telecommen has to offer to acceptly in general and to the business community in particular. Morris Edwards outlines some of the implications of this totalita-linked experiment (page 18). There is also a ceport from Washington by Comeron Davis (page 19) and he still Heat Winner look at the wider US scane (page 18). The Painter describes some

THE young and growing data communications (CW, July Association of Data Com- 20).

But Dr Caxton emphasised that "a dialogue across the ocean" was one of the aims of ADCU, pointing out that its 175 members included international

- Interested parties should con-tact the association president, Wood; formerly Datasolye's John P. Compitello, c/o ADCU, sales and marketing director. PO Box 1184, New York, NY Mills remains, chairman of

Indian enterprise (page 21), and George Cogar offers some views on new steel for micros (page 20). And a facet of the ever present international question of standards

is dealt with by David Mukworthy of Edinburgh, in the first of two articles he outlines the work that

has been done on the revised ver-slort of Fortran, known as fortran

COMPUTER WEEKLY'S INSIDE NEWS

7 (page 4).

ALSO Computerview on the Carter bon

Forus on sporting life Government's micro commitment

Hevision of Fortish.

around them, rather than by taking over existing firms in the

ervices this year. . . .

which now comprises mainly

bureau operations, is growing at a rate of 35% a year, even with-

out acquisitions, and a move

into minicomputer systèms

should take the company's total

In the US, BOC now has a

major presence through its acquisition a few months ago of Airco a billion dollar firm whose main line of business is the same

as BOC's - industrial gases.

Airco aiready has some involve-

ment with computer services through the computer training schools that it runs in Washing-

In order to concentrate on the

acquisitions project Brian Mills has stepped down as managing

director of BOC Datesolve, the

ton DC and California.

Downtime by Chad Date Dynamics side Brunel Michie's Private view

ole in the News

Fablish view of compute Op Boot Micro News International Section Listers to the Editor

APPOINTMENTS: Papas 2R.A.

Two from Digica Word processor by

\$100 million mark by 1980.

STRIKEBOUND since its launch last October, the independent Broadcasting Authority's Oracle teletext tervice is about to reappear in a new, improved version.

Replacing two Digital Equipment PDP-11/10s and a PDP-11/10s and a PDP-11/40, the three independent television companies involved, Themes, ITN, and London Weekend, have each installed a PDP-11/34 system.

Special software has also been designed by Computer Special Sarvices of Reading, part of DEC, which gives the Oracle editorial cricket match scores, or for news broadcasting for the deaf.

Previously, an operating system but the new configuration of fire the new configuration of the news configuration of Recently, the Grand Metropolitan group also set up a micro-workshop to study microsys-tems applications for the group (CW, July 27). Mills sees BOC as already

which gives the Gracie editorial teams more sophisticated text handling and editing capabilities.

These include real-time or presentations and supervisory arrangements' that should be made to monitor the development of these systems. being a major international ser-vices company, which is why he quoted a dollar figure, \$40 milon, as an estimate of BOC's

UK switches to Telenet total turnover from computer THE UK public packet-switched According to Mills BOC's network is likely to use US-built computer service business,

Franspac, to be delayed until

network that has also caused

switch as a stop-gap for its al digital System X speech and Telenet processors following problems with the switching data exchanges due in the early 1980s. Telenet processors in London are already used by the system for the French Transpac

Post Office to access US net-Euronet, which is based on According to Logica, Euronet contractor, the problem The Post Office has been considering Transpac and Telenet to provide a ready-made X25 with Transpac is in the CP-50 switch which is based on Intel 8080 chips.

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Vol. 25 No. 612 Thursday, August 3, 1978

Editor Malcolm Peltu 01-281 8033 Deputy Editor 01-261 8696

Advertisement Menager 01-261 6022 Class Ad Monager Brian Durrent 01-261 8597

IPC Flactrical Electronic Press Ltd. Dorset Houte, Stamford Street, London, SF1 BLU. Yelsphane: 01-281 5000. Yelsphane/Yelax: 25137 S1SPRS Q

Branch Offices: Birmingham 202 Lynton House Walsali Hord Birmingham 228 Telephone 021 365 48 Jd Manchester: Stethern House, Talbot Road Sputford, Manchester M32 Telephone 061-872 4211

New York: 205 East 42nd Street, Nov York NV 10017 TN (212) 887 2080 Teles 421720 - ** Published weekly on Floriday

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EDITORIAL

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computer weekly has a obscillation could work work of your 22 (and includ it in the highest five translation in the UK. The invariantial in a specific translation and invariantial in the control of the could be a specific to a property of the could be a specific to a property of the could be a specific to a specific translation and either Section.

MEINSTELLING

Computers and politics tangled in a complex web

the sale of the Univac 1100 to the the rules for the sale of com-Soviet news agency Tass (see page 15) shows that computers ave now become irreversibly linked with politics. But although politicians like to paint their world in terms of simple, clear cut images, the entanglement of technology and politics highlights the difficulty of taking such a simplistic political

For example, although Pre-sident Carter has said that the Univac Tass ban was a "one-off" gesture of protest against the treatment of computer scientist Anatoly Scharansky by the Soviet government, it is clearly part of a longer-term approac to diplomacy, in which trade is used as an intrinsic part of foreign policy.

The main Washington advocate of this approach is national security adviser Zbigniew Brzezinski, who was in the forefront of White House discussions which culminated in the Tass ban.

At the same time, however, the White House was taking positive action to increase its technological trade with China, ironically approving the sale of educational "establishments

There are also reports that the

aware of the sporting life cur-

rently being promoted by Computer Weekly. Particularly noticeable has been the weekly

picture gallery of tee-shirted

young ladies in various stages of windswept collapse at the

completion of an invigorating

DP management views on the

INTERRUPT

which had a fairly simple operating interface. The operator just typed in a statement such as "LEG A" or "LEG B" etc. and the computer acted on the instruction. The console transmitted only the last four characters of the line typed.

One day a notable was being

then tried to pull in "LEG E" and

things crashed.

Moral: Take care, or you may not have a leg left to stand on.

This Interrupt was submitted by John Perry of Logica, who will regain the 25 award.

radigrs of the line typed.

tastars, competition.

FOCUS

professional by now must be to be put on file. These, however,

the wiping clean of a long cherished historic record file or when it is discovered that the line-up, at the completion of a lengthy.

puters to East Europe, which is governed by rules developed by CoCom, the co-ordinating com-

mittee of the "Western" block. The Americans are apparently interested in increasing the upper limit on permitted sales to the East to encompass the IBM 3031 level of power and, at the lower end, to include micros.

And President Carter is still prepared to allow an IBM 3707 148 to be used to control the information system at the

From the point of view of the potential purchaser of American systems from countries which niight fall into Presidential disfavour for political reasons, the current American attitudes. with glaring inconsistencies, suppliers from Europe and n — or to the developmen of an indigenous industry, as is happening in South Africa. Following a ban by the

American government on sales of computers for police or military use, fear spread in South Africa that the ban might be extended. The result has been the sudden mushrooming of local computer companies in South Africa, or the establishment of local manufacturing facilities on behalf of American

EVEN the most academic DP latest work distractions have yet Black-Jack could well be the

may not necessarily be favour-

able, especially as certain instal-

lations are already suffering

Saturday Night Fever. Instruc-

tions could well be issued that

should be stored - not broken.

Computastars, in fact, are not

exactly new in the DP world.

Many DPMs see stars following

at the completion of a lengthy, managing uncountries, an educational establishment, printer run has been egratic of happen to walk through the inwhich had a fairly simple the wrong date loaded. Stars are stallation during a high-stakes

likewise seen during retrieval

operations involving the lower

when upper levels have been

unknown within the confines of shown round the installation. He the DP section, Many applica. Standard installation dress

House indicate that, if any other Western country tried to step into the gap left by an American ban, there would be consider

able White House anger. And so the tangled web grows - yet who can now argue that computers and politics can be kept totally apart?

The use of computers is so crucial to the operation of governments that the means cannot be totally abstracted from the ends.

The whole issue, however could be undercut by the ubiquitous micro. To try to ban the sale of micros is virtually impossible, given the small size of the devices, which can be slipped into diplomatic bags and pockets with ease. In the long term, the techno-

logical commodity which will be in greatest demand is human skill -- and the political systems which prove to be the strongest are likely to be those which en courage and foster the develop ment of these skills. Anatoly Scharansky is a dis-

installation engineer joker who

seldom appears when re-

company complaint in respect of

work delayed three weeks run-

cessfully completed despite the fact that stationery stocks are

dangerously low; that the key to the back-up safe has been taken

home by the previous shift; and that the faulty datacom link

It is also a thance that the

game of gin rummy in the tea break, Similarly DP gamesman-

comes to presenting expense

ning and press-ups. The instal-lation Wonder Woman title will

does not deteriorate.

Games of chance include that

quired.

from an energetic excess of of wondering whether the user Thank God It's Friday and department will lodge a formal

data runs are limited to work ming, or in taking a chance that

progress; track events to disc the job in hand will be suc-handling; and that records cessfully completed despite the

level stock of stationery boxes ship has few equals when i

known to descend rapidly.

It must also be admitted that sporting events are not entirely cess of Computastars, there

ture both games of fortune and figurations to on-the-spot run-change while certain operating ning and press-ups. The instal-

procedures are remarkably latton Wonder Woman title will dicay. Pank Lane casinos could no longer be awarded to the well callect some helpful tips fastest data prep girl Plate.

watching the DP operator dex-trously changing packs with loser of the washing-up selec-barely a break in the data flow... tion program.

processor linked to Bracknell, tinguished member of the comand the 2904s will be redeployed. puter community; his is a talent So far Racal has about 15 of its the Russians cannot easily lose. manufacturing operations, using 80 terminals, linked to the This loss is a self-inflicted real time system, and manageprove to be far more damaging ment services director Derek than the banning of the sale of Norman says present plans encompanies, such as General one computer system to Tass. visage about 30 sites online via

ome 200 terminals. One of the applications to be oaded on the 2960 will be an order processing and monitoring evatem that has been developed

Package tours to Sicoh in Paris next month

TO enable Computer Weakly readers to attend Sicob, the big E186.
French computer equipment and systems show to be held in Paris from September 20 to 28, three special package tours have been arranged. There are two two-night packages starting on September 20 and Soptember 22, and a four-night tour running from September 20 to 24. The first two September 20 to 24. The first two

iual 2960 system from ICL.

unit, is due to go in in January. The 2960, which will run en-

tirely under VME/B, will handle

work at present loaded on 2904s

at Bracknell and Reading, and

on a 1904A at Tewkesbury. The

1904A is to be replaced with a

terminal system or a front-enc

£1.25m ICL Portsmouth for Raca

TO take over and expand its real time manufacturing control system, the Racal Electronics load, Portsmouth City Council to replace its IBM 370/135 with group is installing a £1.25 million computer staff. The new machine, to be installed in r. The first processor with two 1979, will cost about £90.64 Mbytes of store is already invear on a five-vear lease, and t stalled at Racal's new computer centre at Bracknell, where the group's HQ is located, and the

> "We will be taking on database administration man ager, three systems analysi and some programmers," said council spokesman.

Siemens' office systems project

IN its biggest single projesince World War II; Siepess investing DM 500 million use £125 million, in technolog associated with the integrals office. The project envisage single terminal unit lucape rating telephone switching voice and data transmission facsimile systems. Suchate could rival the 8811 th telephone already introduced Nixdorf.

Ten years ago...

COMPUTER WEEKLY

THE first new product to be immehed by ICL was a magnetic tape encoder developed jointly with Potter Instruments of US. Manchester Hospital Board took delivery of an ICL System 4, the first to be installed for medical and hospital use . . To combat fraudulent abuse of credit cards in the US, American Express Installed an IBM 360/

AUGUST 1, 1968 York . . . Research simed s expanding the acope of computer applications was be undertaken by the Natio oned by IBM to wer

on the development of the PL/1

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Government commitment to industry now about £150 million

expanding

larger 370/138 and take on extra extra staff are expected to all about another £45,000 a yearth econd processor, a one Mbyte

The microelectronics market is one of the least free in the world.

> The level of support of the latest scheme, 214 million a year, is substantial when measured against the present total UK semiconductor output, which is estimated at £63 million Justifying this level of sup-

port, Varley said that although the unit cost of imported components might be a few dollars, very large numbers would be required, at a cost of "hundreds and hundreds of millions of pounds" to the balance of pay-

"We do not want to become prisoners of foreign technology

He estimated that the proposed support, if all of it was aken up, would lead to investment on the part of the industry of some £250 million. Of the £70 million total, £54

million is being provided under the Science and Technology Act 1965, for research development. Research projects will be

linded at up to 50% of eligible costs, recoverable where appropriate by a levy, on the resulting products. Development projects will be funded either with grants

microelectronics capability have to be very short of cash, and the support will be recoverable by a levy on sales. All attempts to get the major UK manufacturers, principally Ferranti, GEC and Plessey, to collaborate with each other

VARLEY . . . "we do not want to bocome prisoners of foreign tech-

New division

TO stimulate awareness

Applications Division.

microalectronics techniques, the Department of Industry has

the ventures will have to be

high-risk, or the company will

Varley announces

£70m aid

for micros

FIRMLY rejecting the "timld,

short-sighted school of thought

which says that there is no need

for the UK to develop its own

when it can buy products from

abroad", Industry Minister Eric

Varley last week announced a

scheme for UK-based micro-

The Department of Industry

plan, exclusively revealed in Computer Weekly last year

(December 1, 1977), now brings

the government's commitment

to the microelectronics industry

to about £150 million, when the

NEB's planned £50 million sup-

port for Inmos and the Dol's £15

million for micro applications

670 million five-year support

electronic ventures.

have so far failed, but a carrot is held out in the form of even higher support in cases where collaboration would reduce duplication of effort, or produce enhanced results. This measure is also aimed at collaborations between a British and a foreign company.
Eligible costs are any equip-

ment not regarded as normal tools of the applicants trade, up to 80% of the total development cost. The scheme is open to all companies operating in the UK microelectronics sector, including non-British owned multinationals.

Varley also said that there would be some kind of formula under which companies could get support for their own inhouse microelectronics facilities, something for which both Racal and ICL have asked (CW.

Under the Industry Act 1972 (a Conservative measure, Varley pointed out) £16 million is being allocated for investment in production facilities, and grants will be made of up to 25% of the total

This will be additional to any other grants available to companies for setting up in development areas or areas of high unemployment, Varley told Computer Weekly.

The microelectronics market is one of the least free in the world," said the Minister. "The US has a tremendous lead because of its work in a major space and defence programmes No advanced country will let it retain that lead unchallenged and neither shall we. The Japanese have evolved a significant support programme for VLSI circultry, and the French and the Germans are -vaiso planning support meas-

Effects on employment study switched to DoE

mplications of microelectronics that will be required by the Central Policy Review Staff, the Bovernment's "Think Tank", will now be carried out by a new group established by the Dertment of Employment.
The group, which comes

Milhin hig Department's unit for manpower studies, is headed by assistant secretary Jonathan Sleigh, 38, a career civil servant from the Ministry of Defence. He will be backed by a full time seconomist. conomist, plus another working part time; and consideration is being given to the appointment of a computer systems and the state of the ins specialist.
It has been established for one

ar initially and will be condering all potential effects, in-juding the scope for new minorment opportunities, and

the potential cost to and displacement of existing jobs.

The group will try to estimate next five to ten years, and it will also consider the requirements for training and retraining during that period In particular, it will be con-

cerned in the early stages with the existing skill shortages in

Merseyside

SEEKING to get the inmos plant sited in the region, the North West Regional Council of the TUC has written to local MPs urging them to press the claims of areas such as Merseyside, with over 12% unem-



duction of sample 64K RAMs later this year (CW, June 22), lann Barron, co-founder of the National Enterprise Board's Inmos venture, is unconcerned at the apparent two-year lead time that ITT will have over

Emphasising that Inmos planned to develop "quite a wide range of products", Barron pointed to market leaders Intel and Mostek as companies likely to provide stiffer competition in ITT. He also pointed out that "we have never confirmed that Inmos definitely intends to make 64K RAMs and, at this Fuiltsu's chip. stage, I am not prepared to say whether we shall or shall not." power sources of -2 and +7 "ITT only started designing its

64K chip in June. The technoare planning devices using a single 5 volt power supply. logy to manufacture them mically is not yet avail-

ITT Semiconductors is the

Fujitsu's 64K RAM requires

volts, but other manufacturers

"We are currently manufac-

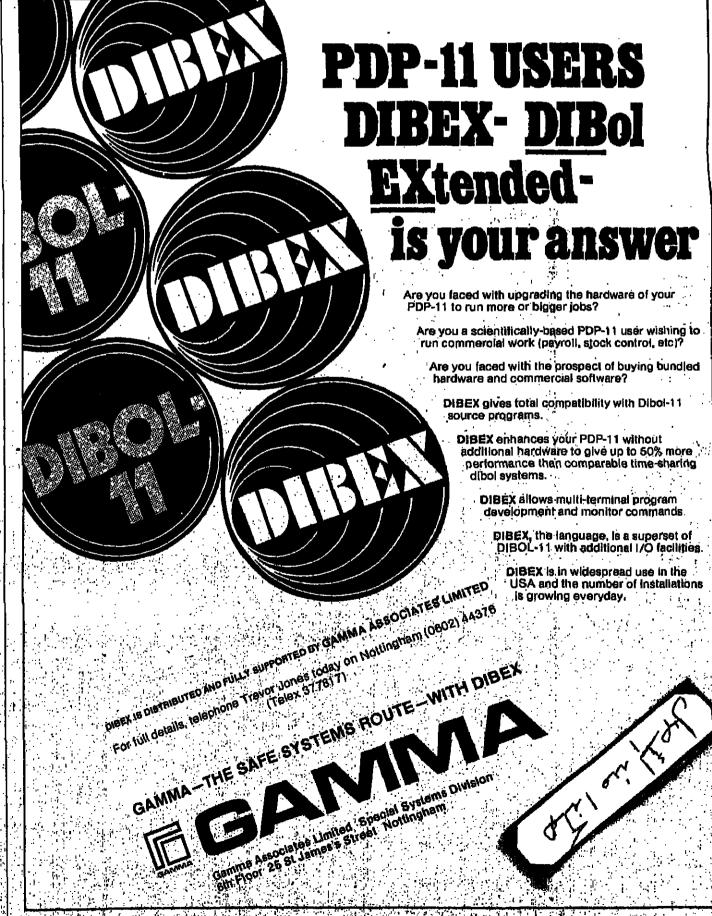
only UK-based company

2K-bit chips in the large-scale 3033, but if it were to use 4K making memory chips in volume, and is the international chips, a typical configuration headquarters of ITT's effort in with 8 Megabytes of main MOS technology and memory memory would require 16,000 of Barron also qualified a state-"We hope to begin sampling 64K RAMs at the end of the

ment made at the time of the year," general manager Dr Gerry Thomas told Computer formal Inmos launch "We said we were not going to Weekly, "Technical details are second-source other companies under discussion with our cusproducts, but what we meant to emphasise was that this would not be the basis on which Inmos tomers, but there will be no mujor surprises in the device: it will be more conventional than would be built up."

The industry traditionally off ered multiple sources for its products, he noted, adding that while immos had no plans to make its first product an item second-sourced from elsewhere. this might happen if it seemed able, and the market is not ready turing 4K-bit chips at a rate of appropriate at the time.

spective, IBM currently uses



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${\it Buzz}, {\it buzz}...$

ductor industry. Like all good product ranges. state-of-the-art (buzzwords) leading-edge-of-technology Rubicon".
(buzzwords) industry, it has been second only to the computer industry in inventing punchy, succinct and imaginative terminology with which to describe itself — buzz-

But, suddenly, it appears to have lost the gift, or more alarming, picked up a classical education, for the new vogue expression in Silicon Valley is "crossing the Rubicon."

Is it, I asked myself, a new

trend among the semiconduc-

A revised American National Standard

for Fortran, informally known as Fortran

77, was finally approved by ANSI in April

this year (CW, May 18). The standard

itself has not yet appeared in print,

THE American National

revised standard for the language, formally defined as X3.9-1978.

The revision of the 1966

standard turned out to be an

standardisation. Language facilities were standardised which

appeared in few, if any existing

compilers. Ideas on desirable

language constructs were, and

are, subject to wide debate and

evelopment and the project

was in danger of becoming a

continuous one. Therefore, after

eight years, 30 man-years and \$2 million a halt was called.

cluding the ANSI committee

members themselves, is likely to agree with every single decision

on inclusion or exclusion of items, but most people accept that the new standard is a

significant and necessary ad-

compatibility with the earlier standard and so Fortran 77

retains all the essential features

of the language. In particular, the characteristic layout of

statements, the maximum name

programmer's control over data allocation through COMMON and EQUIVALENCE are

A blook IF is introduced but it

Great emphasis was placed on.

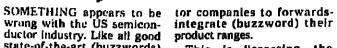
This means that no one, in-

This is "crossing the

Twentleth Century Dictionary, the Rubicon is a stream in Central Italy, In Roman times. it separated Caesar's province of Gallie Cisalpina from Italia proper. The first "crossing the Rubicon" was made by said Mr Caesar, a move that was taken as an open declaration of war by the Republic.

I am greatly saddened that the analogy is so transparent. breakthrough in rare mineral. The industry is obviously technology? No, the phrase in losing touch with itself, and ucation refers to the growing possibly gaining a hold on

● YOU will be familiar with the paranols of our Good Neighbours, the French, about their language, and their franțic struggles against the encroschments of Franglais in inventing new French words for each new Angle-Saxon technological discovery as it comes along. "Logiciel" for "software" spring to mind. "Informatique" is a catchy word, if untransistable. Well, they have now come up with a new word covering the field of office automation: "bureeutique." interesting, but how does one translate it? "Bureites?"



According to Chambers'

Confessions of a president

PASS GOLDS VER COMMITER SCHNNER

president of Data General. Edson de Castro delivered an interesting speech to the graduating class of his alma mater, Lowell University. My spies, who have been known to scale the ivy-covered walls of academia to get their stories, brought back the following,

more light-hearted, excerpts 'I was told that this affair is called a commencement, but 18 years ago at my graduation it seemed to me to be the end of a big chore and the event was.

something of a bore. "I am too young to be giving you advice after a life wellspent. And you are clearly too

although a preliminary draft was

published in Sigplan Notices in March

1976. Compilers written to the Fortran

"I have held only two jobs in my life, both in the same field, so I cannot testify to the variety of opportunities I know you can look forward to. And I have held the same job for the past 10 years, not a record of wide experience. In fact, my personnel director tells me that I'm not promotable.

'Writers and editors are much in vogue at commencement time, but since I am an engineer, you will assume I can't write. I do sign a number of letters and forms and contracts. But they are usually written by somebody else. talk to editors and reporters

occasionally, although it

There were hardly any 15 cent stamps in stock, so a supply of emergency stamps was due out of the back rooms, to tide loesn't seem to do much good. things over. They are in the business of Don't bother to chase after selling newspapers, and the the A stamps as rarities; there opinions of engineers and businessmen don't help sell must be enough for every stamp collector in the world to papers. According to the polls, businessmen, in fact, are res-

politicians. "I started a computer company, along with several other people, when we were not much older than most of you.

pected about as much as

A CORRESPONDENT of mine

received a letter from America

recently bearing this stamp,

with the letter A in place of a

value. She wonders whether,

as part of the computer

revolution, the US Postal Ser-

"We shipped our first computer to Texas University, and the computer press. "The statement that data records t was lost in transit. Ten years later we are building a will be selected on the basis of manufacturing plant and development laboratory in Austin not just to avoid losing computers in transit."

paper his walls with. Quite right MISPRINTS, as every writer knows, can be very embarras-sing. Take this sentence from a recent article on ICL CAFS in

her, I gather the explanation is rather more mundane. The US

Postal Service, planning to raise its letter rate from 13

cents to 16, printed zillions of

16 cent stamps, but was then

told by the government to keep

the rate down to 15 cents.

what they contain rather than what they are stored is non-You're right, it is nonsense!

the previous (1966) standard. In a sub sequent article, he will describe the war of thought currently being followed by the ANSI Fortran committee, X313, on the next standard, due in 1982.

77 standard are not yet generally available, although most manufacturers have puting Centre, summarises the main Revised standard exercise in language development (by committee) rathor than one in retrospective standardisation. Language facilities were standardised which

ndicated their intention to produce

them, in this article, DAVID MUXWOR-

THY, of the Edinburgh Regional Com-

mode expressions.

So far as possible, the committee attempted to generalise the language so that where the 1966 standard demanded a vari-able. Fortran 77 allows an expression and where formerly an nteger entity was required, now

any arithmetic type is allowed. The new type CHARACTER, so far as is logically possible, follows all the normal rules of Fortran. A character variable may have its type defined in one statement and be dimensioned n another, character functions exist and so on; it is possible to

The character type statement is in the style of the current IBM. arithmetic type statement so that a program unit could inength of six characters, and the

> CHARACTER+15 A,B(2),C*1,D(3,4)*40 A = 'APPLE STRUDEL'

relates only to code structuring and there is no corresponding The interpretation of these statements is fairly obvious. other major changes are the introduction of a type strings of different lengths, padiched the strings of different lengths, padiched the strings of the spaces or truncating mant of type Hollerith and at on the right as appropriate. Ar

omitted substring subscript implies the first or last position in the string. The colon, used here, in the array declarator and elsewhere is the only new cha-

racter in the character set. Characters may be equivalenced, but only to other characters, either explicitly or in-directly through COMMON statements. Zero length strings are not allowed. Character strings may be compared in relational expressions according to the collating sequence used by the processor and, in order to allow a machine independent comparison, functions are pro-

vided which use the Ascii collating sequence. The only new operation de-. fined for characters is concate. sion and complex; this is be-

racter expressions including cision complex does not exist to instants, may be used in place. The order of evaluation of exor of a format in a read of write pressions is not defined and prostatement and character strings cassors may evaluate mathemay be used in place of a logical matically equivalent expressions, however the programmer statement, thus giving the effect can force the order of evaluation of ENCODE and DECODE but by using parentheses. New with a different syntax in this relational operators for testing example, numeric variables X, 2 are converted under format duced.

Fortran 77 arrays may start at

any lower bound, not necessarily I, and may have up to seven dimensions, dimension bounds may be expressions (of a limited type) and the rightmost (or only) dimension of an array used : as a dummy argument may be specified as *, thus formalising the long established programming convention of writing 1 in this position. Subscripts may be an integer expression, subject only to conditions about side effects of function references in the same statement.

Mixed mode expressions are allowed for every combination of arithmetic variable except for the combination double precination, with operator// Cha- cause the data type double pre-racter exprassions including cision complex does not exist.

Y, Z are converted under format guced; control to characters in the life slightly surprising that string C, Fortran 77 has adopted one of the basic control structures; IF. THEN ELSE, but not a DO WHILE or DO-UNTIL, The DO

Hollerith dharacters may no loop has been updated to allow force the printing of leading port the full Janguage. It is longer be stored in arithmetic or logical variables.

Y001/A Fortish 77 includes commonly parameters which may independ the suppressions of a fullities. Ilken in the way manufacturers have its He23 6A less than one in the record number of a keyword.

WHILE or DO-UNTIL The DO format codes, for example, to use on systems and use on systems and port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is port to charge the printing of leading port the full Janguage. It is po

The value of the DO index is defined on completion of a loop to be the value it would have had for the next iteration had there been one. The extended range of a DO-loop is no longer allowed.
The form of the block IF is

ELSE

n place of an ELSE there may be an ELSE IF(e)THEN followed by a block of statements up to a following ELSE, ELSEIF or ENDIF. Transfer into such a block of statements from outside the block is prohibited.

Fortran 77 input/output is denote a comment little different in facility from comment lines may be in that available on most large leaved with continue differences in syntax as men- list these in full and it is Lioned above. Compared with the 1966 standard, direct-access and free-format input/output have been introduced, together with OPEN and CLOSE statements which are optional for sequential files, the INOUIRE statement which may be used to determine certain file attributes and the concept of "internal files" which are in fact character

strings.

Also been defined a defined a fine are minor extensions to language which is intended in language which is intended in language which is intended in use on systems too small to so use on systems too small to so on systems too so on systems too so on systems.

whether the argument is single or double precision or complex MIN and MAX may be written instead of AMINI etc and 100 instead of ALOG, CLOG and DLOG. An optional PROGRAM statement has been added to name a main program and block data programs may now be named. An early change to the language which goes against more modern trends is the addition of labels as arguments to subroutines and the so-called the soalternate return from SU

The old problem of the rela tion of local values in subpa grams has been addressed b introducing the SAVE state ment which allows the pro-grammer to nominate variable whose values are to be saved of whose values are to be saved we exit from a subprogram. SAVE may also be used with common blocks thus enabling the calling the saling the salin structure of the program to ke implicitly indicated within it.

this too is new to Fortran. Fortran 77 includes man other detailed changes; (of example, functions without parameters, omission of the label list in the assigned COTO asterisk accepted instead of the so on. It would be tedion that the above gives some impression of the extent of the

Apart from things already nentioned, items which might have been expected to be cluded but were not include NAMELIST, DOUBLE PRECING COMPLEX, choice of lengths for integers and logical and bit manipulation. There has also been defined a subset of the s record and to cause blanks in cludes type character but an interest of the full language.

In under the complete the compl

Data Dynamics aid Brunel micro lab

would be patented by the Natio-

nal Research and Development

Council and the profits shared

The laboratory will be used

by Data Dynamics and Brunel.

mainly by fourth year students

carrying out microprocessor or-

iented projects.
Professor Pitteway, who is a

technical consultant to Data

Dynamics, points out that any

project carried out in the lab for

Data Dynamics that had a com-

mercial deadline would have to

be paid for by Data Dynamics in

the same way that any other

company would have to pay. He adds that the lab would be

able to produce microprocessor

software that could be of value

Row over South African trip results

to Data Dynamics and other

marketable developments and terminals.

ducts is being set up by the Computer Science Department of Brunel University and terminal manufacturer Data Dynamics. The basis of the arrangement is £15,000 worth of power supplies and other hardware from Data Dynamics for use in the department's new microprocessor laboratory. This will greatly augment the meagre £18,000 a year that the depart-ment is allowed for new equip-

Two conditions of the Data Dynamics contribution are that is personnel will be able to use the lab, and that the company will have the right to exploit any commercially viable developments that may result from

in new selection system at Leeds A NEW computer technical the two men asked that they machine will last only until working party is to be set up by should cease to have any res-

next computer system, when the

order is put out to tender in the early 1980s. This follows a shift of responsibility for the computer from the Department of Finance to the Department of Administration, made earlier this year after the council investigated a trip to South Africa financed by ICL, which was made by James Beer, the director of finance who chaired the old working party, and Kenneth Potts, the chief

Following the investigation

PLx45D PLx45D Media compatibility and c

BN type 3740 companish

v.-63 Mbin

Leeds City Council to choose its ponsibility for the computer system "to avoid any possible criticism in the future. Leeds now uses an ICL 1904S

system, but according to Coun Keith Loudon, a member of the council's computer subcommittee, which was set up last month, ICL will not receive the next order automatically, but will have to compete at least with-the three manufacturers which have previously tendered Honeywell, Univac, and IBM.

"Computers wear out," said Loudon, "and our experts have told us that our present ICL

tion of a new computer at that time will mean the expenditure of a vast sum for the city, we feel that any decision on what system to use can best be made by a technical working party. "It has not been established

minal that comes with a key-

board, an acoustic coupler and

the necessary electronics to en-

able it to plug into a stundard

television receiver. Having no integral VDU it costs only £550.

and typical uses include pro-

gramming at home and order

Data Dynamics will retain

ownership of the equipment

donated to Brunel, but will

maintain it free of charge. The

lab will be run by computer

entry by salesmen.

yet," he added, "but the computer sub-committee is to meet this week to discuss who should

Loudon also says that now that the computer system comes under the Department of Administration, "we hope to develop wider applications and make



stoff and the needs of his users were the chief factors in earning co, who has been involved in upgrading from an IBM 360/22 to an IBM 370/125 installation. He wine a rose bowl and C150. Neville Taylor, clisiman of the DPMA, commented that the winners had displayed exceptional abbourgement Roy Hacking-Brown, of Hornby Hobbles, the DP manager of the year award for 1975.

Hesling-Brown (pictured left) received thic year's DPMA/Data Logic award of £250 and a aliver punch bowl and cups from Data Logic managing director Alas Thomas at a reception last week in the Savoy Hotel, London.

The award, which was first presented last year, aims to

This year's judges were mpressed by the way in which lesting-Brown involved his staff n improving the performance and customer service of the compay's ICL Bystem Ten installation which handles sales, stock con-trol and invoicing applications, Runner-up for the award was

judges for this year's awards were Brian Eison, managing director of Scicon Computer Ser-vices, Dorek Scrivener of the National Computing Centre, innes McBeath of the London Business School, Inst year's win-nor Sydney Perkins of International Horvester Ltd, Ken Owen

cessful DP management

achievement in creating and maintaining staff morale, which

he believes is the key to suc-

in addition to Taylor, the

UMIST professor computation at the University of Manchester Institute o Science and Technology is Professor David rently at University College. Aspinal

Aspinall

moves to

Swansca. Aspinall is head of the Department of Electrical and Electronic Engineering at Swansea and is known for several

Security service

research projects.

THE security service proposed by the National Computing Centre is to go ahead and details should be available soon. The service (CW, May 11) will act as an umbrella organisation for education of users in computer

Settling down

FINANCIAL secretary to the Treasury, Robert Sheldon, has admitted to the Commons that new procedures introduced at sea ports where computer sys tems are being installed for online imports clearance were "somewhat slow" but were

£2.5m airlift of ICL machines to Australia

computer equipment, 35 tons of ICL 2900 mainframes were the machines by road and sea to oaded into a McDonnell Dou-Luxembourg. The precious payload, valued at £2.5 million, consisted of two glas DC-8 in Luxembourg and lown to Melhourne, Australia. 2960s, one for the Australian bourne grocery wholesalers. The DC-8 was chartered from the Cargolux freight carrier, and government in Canberra, and Ericsson is replacing a 1903T.

IN one of the largest airlifts of the shipment was handled by the other for Swedish telecon EMG Air Services, which carried

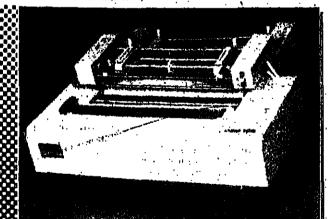
munications company L M Ericsson in Melbourne; and the first two 2950s to be shipped abroad, both of which were for Composite Buyers Ltd, Mel-

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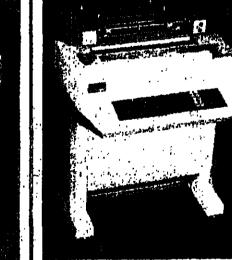


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are done . . .

EDITED BY PETER HEWITT

SOFTWARE FILE -2

Predictions over DG Eclipse fulfilled

SOFTWARE FILE-1

of being instructed via intering is that for any list L the conminable streams of imperative catenation of nil (the empty

The helpless indignity of heir situation puts me in mind additional meat to it, says that of the recruits marching if the concatenation of L1 and towards the edge of a 12 is 13, then the concatenaprecipice-lined barrack square: tion of X.I.1 and L2 must be "For God's sake say some-X.I.3. Given knowledge of only thing, sergeant, even if it's only

afflicted with ennul or despair.

Tom, Dick, Harry and Mary I have news. You too may one Jane, Lou, Priscilla is the list

will one day indolently disbur-den themselves of the drillergeant chore. How relaxing it is to be able to bark out "... left, right, left, right ... about turn ... left, right ...

now get home using your bleeding common-sense!" and then withdraw to the mess-

The most forthright expression f this excellent laisser-faire saying this sort of thing with a notion is that you should equip the machine with a hasic reasoning engine, and thereafter tell it nothing but facts on the understanding that it will do its best with them. As you build its stock of knowledge with just the right set of relevant assertions about what is or is not the unambiguous in what it says case in the world of sorting, about its problem world. If, merging, data control, queueing, scheduling, game-playing, or whatever, so the system builds its own capability to sort, merge, control data, manipulate matrices, etc. simply through its own efforts to prove that any "goal" statement fed to it really can be

deduced logically from its tics accumulated store of facts. Let us consider, for example, Let us consider, for example, can forget the past dismal what are the relevant facts 30 years of drill-sergeant about the concatenation of 'programming, and use as a two lists Ll and L2 to make a programming language a

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9 5 VDC, ...

DO computers ever get bored third list L3. One obvious fact list) with L is just L. Another, with just the needed amount of these two facts, a logically minded system ought to know For such of the world's exactly what to do when told teeming machines as may be that the concatenation of

MICHIE'S PRIVATEVIEW

day have to think for your-selves. known as popgroup. Tomorrow's programmers the system has been smart enough to work out the only substitution ("assignment" in the world of imperatives) for popgroup consistent with the known facts? Try 'print (pop-

sweat and ingenuity and dog-gedness and flair. Kowalski's group)" and prepare to register relief if we get "Tom, Dick, Harry, Mary, Jane, Lou, disciples in Edinburgh, Marseilles, Western Ontario and Hungary have deployed these in 1971-72 Bob Kowalski qualities in good measure over then still at Edinburgh, was the intervening years. The name of the resulting miracle is wild gleam in the eye and a PROLOG, a programming sys-tem meticulously faithful to wealth of technical detail. In effect he was saying: "Whatthe sweep and simplicity of the ever you want the system to original concept, but actually know tell it the facts in first order predicate logic. The result will have an obvious derunning on commercial machines with efficiencies fully comparable with for clarative semantics – it is quite example, Stanford's highly optimised pure LISP system. Those who, like myself, have moreover, the system is equipfor many years followed the ped with a theorem-prover be-hind the scenes, capable in PROLOG development and have done a little PROLOG

principle of deducing anything programming are inclined to deducible from the starting over-excitement. I find myself facts then whether you like if not only planning to retool my or not, the logic statements own laboratory's work on the now take on a second life. They new basis, but speculating acquire a procedural semanabout the "expert systems" of What this means is that we

all the time, much studied and well understood by mathematicians, namely first order

predicate calculus. Kowalski showed in detail how a theorem-prover based on J. A. Robinson's "resolution principle" could be made into an interpreter for such a not like any of this. Some felt that he was right but mad others that he was wrong if only they could think exactly how. The majority took the pragmatic view, tried and

tested on prophets in all times

and ages, that you might as

well ignore the whole thing

until you are shown a miracle

Miracles take time and

The five products are functionally identical to those offered under RDOS, notes the company, and present an unchanged interface to the user. However, the work of transferring them from the single-user RDOS environment has not been trivial, and has been accompanied in some cases by significant internal changes, according to a

the M/600 (CW, February 2),

announcement of major enhan-

ming Advanced Operating Sys-

In addition to Cobol and RPG

entry/access applications deve-

lopment tool Idea, the Infos file

management system and a

All the software was pre-

on Eclipse C/330 systems, and

will now be supported under AOS on both C/330 and M/600

powerful sort/merge utility.

The commercial multiprogramming extensions to AOS have been in use for periods up to a year at some eighteen test

add North Thames Gas. Regular decommercially-oriented software liverles are scheduled to begin to its latest Eclipse computer, early in October.

Said to be the only minicomhave been fully borne out by the puter Cobol to implement the Ansi 1974 standard at its highest cements to its multiprogram- levels, AOS Cobol includes an interactive debugging package using Cobol-like verbs. The package lets users set traps or Il compilers, the new facilities breakpoints, examine and include DG's interactive data modify data items, and then resume execution

> In common with the RPG II compiler, and with the PL/I software released earlier this year (Software File, January 26), the Cobol compiler is shareable, so that a single copy can serve several users concurrently.

An enhanced implementation of IBM RPG II, the AOS version is sald to be highly compatible with both System 3 and 360/370 DOS RPG II. The software includes an editor, program analyser, an interactive symbolic debugger, and interfaces to

idea also provides access to Infos databases, allowing data validation against files at entry scientists, and managers in time, and dynamic updating from online terminals.

UK firms set to reap spin-offs

from Japanese computer drive

PREDICTIONS that the Japanese thrust into the world computer market would create significant would offer world computer market would create significant

opportunities for the UK software industry have been vividly confirmed by news that Altergo is anglicising some 150 manuals for the Fujitsu CollyF4 operating system.

The contract which was extended to Altergo's chairman, Raj Thomas, told Compte Weekly: "We are turning the manuals for the contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, told Compte Contract which was extended to Altergo's chairman, Raj Thomas, Thomas

Facilities are also available; designing and storing stoformats interactively.

An interesting feature of Acc Sort/Merge is that the up can specify his own collate sequence, in addition to the standard Ascii sequence Itroutines accept files genered in any AOS language, including Infos Isam and database for

The addition of Cobol RPG II brings to eight it number of languages in ported under AOS, which see viously offered Fortran IV. tran V. Basic, PL/I, Bun assembler, and DG/L-118 sion of Algol.

The commercial enhance ments are priced at (26%) Cobol or Idea, £1,680 for RPGI or Infos, and £504 for Sert

December launch

Japanese English into English English. W

effort, but we have put in one man-year so

have done about 10% of the work."

million coming from the US alone.

timate that it will involve about five man-year

ness is done abroad. Revenue is predicted to

around £6.5 million this year, with around

Thomas noted that some 70% of Altergo's be

Worldwide, sales of the Shadow II IBM 380%

AN international quarter journal is to be launched in De cember aimed at engineers volved in using programs engineering. Called Advance

Xerox Sigma replacement pack ready

1,200 installations have been made, the software products division of Informatics inc is quietly building up a strength in the users will run the new compat-European market for applications softible CP-6 operating system has ware-and showing a cautious interest in now been announced by Honeywell and is aimed at users of the small systems market. Both trends are exemplified in the an-Xerox Sigma 9 and large Sigma 6 nouncement of an IBM System 3

and 7 systems. The announcement, so far only made to Xerox users in North America, includes two topend models in Level 66, designated Level 66/DPS/C3 and C5. The C3 model is designed to support up to 120 time-sharing users and the C5 up to 200.

CP-6 is an adaptation of the Xerox Sigma CP-V operating

The new operating system, designed to preserve the main features of CP-V while running on the 36-bit Level 66 machine rather than the 32-bit Sigmas, comes with new re-entrant language processors for Cobol 74, Ansi Fortran, APL, Text and Basic, and will also support the Honeywell IDS II database sys-

The hardware is an adaptation of Honeywell's new top-end Level 66/DPS systems which supplant the 66/60 and 66/80.

Biggest problem for Honeyell — and for users — is that the hardware-software package will not be available until November 1979. This, allled with the cost, may well lead significant numbers of users to opt for the alternative from

In addition to standard general ledger and standard produce costing.

functions, the system offers features for budgeting, profit planning, cost alloca-tion, and foreign currency conversion. Report writers available include a freeform English-based language for producing financial statements, a matrix

Informatic's European moves

The mainframe software, written in Ansi Cobol, runs on IBM and Burroughs systems and has about 350 users, predominantly in the US. A version for Honeywell equipment will be ready next

Usage in the UK was originally rest-

management system, of which more than as the manufame version, the software management system, of which more than includes a series of user-oriented report of a comprehensive family of accounting companies but several sales have been writers and will be available in Europe systems which also includes packages for made in the last year to major British. accounts payable, accounts receivable, owned firms and installations in the UK now number 10.

One recent customer, International Stores, evaluated seven similar systems before opting for the informatics package. Having developed and outgrown its own ledger system. International Stores chose to purchase a system because o the prohibitive cost and time penalties of internal software development

Due to be released in Europ later this year is a powerful extension to the Accounting IV/ Accounts Payable system. Designated the purchase order commitment module, the new product will permit three-way matching of purchase orders, receiving documents, and ven-

existing Retain/370 database. An Informatics spokesman However, the volume of PTF noted that the company is material involved would make gearing up to become a full-line its delivery over a low-speed supplier of application systems communications link very to financial and insurance users. lengthy and 🗕 as a result 🗕 It had already acquired a personnel system from a company in Milwaukee, Wisconsin and was in the process of acquiring a payroll system, he said.

The spokesman confirmed however, the company had exrienced a setback in one of its earlier application ventures. Production IV (CW, May 20 1976). This package, he said, was no longer actively marketed either in the UK or the US.

In addition to being too expensive to market, it had also seen too demanding in the skills

OS PTFs: no problems for non-IBM users

ALTHOUGH IBM's new sysbrought one step closer the tem for distributing OS PTFs (CW. July 27) raised initial doubts about the position of look-alike manufacturers such as Amdahl, it seems in fact unlikely that the move will raise any problems for non-IBM users of IBM operating

implementation of the Accounting IV

Offering virtually the same capabilities

General Ledger system.

One anxiety was that the new distribution method

over software copyrights, but had no such

problem in recommending copyright protection for computer-readable databases.

The vote this time, ten in favour with two

possibility of IBM maintaining systems software remotely via One US manufacturer, Basic

Timesharing, has already implemented a system for remote online maintenance of installed system software, which it operates in conjunction with a system for remote hardware

software patentability.

recommending copyright protection for recently invited to consider the question of

control of central mainframes connected via the public Now Contu recommends copyright protection

introduced its own remote

hardware/software check-out

service, based on the remote

support facility (RSF) option.

This facility, an attached diag-

nostic processor, allows IBM

an installed machine under the

customer engineers to exercise

THE US National Commission on new technological uses of copyrighted works final report to Congress following nearly Congress examine the question of extending (Contu) has finally come down in favour of three years of work. Congress was also copyright protection to semiconductor devices manufactured from a mask, according to a senior attorney on the commission staff.

Comparable with Amdahl's

remote diagnostic service, RSF and its links to a worldwide

network of debugging proces-

Dissenters on this occasion again included He said that counsel for Intel had told the the writer John Hersey (Software File, Commission that semiconductor manufac-March 23) who was Joined by Rhoda Karturers needed copyright protection to prepatkin, executive director of the Consumers vent unauthorised copying of circuit de-

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Honald Tillie

HOTES

are just programmers are pretty example — I scribble out a de-well over with the advent of sign in two or three hours. It's no

John noted that once the applications, but will continue clieft changes his mind. And, on database management system is to be the sensible alternatives most of these occasions, the secup, writing actual programs for larger users respectably client is usually a DPM! takes a fraction of the time that now when staff are so hard to John has been with UCSL for about three years and thinks he

OSIV/F4 operating system.

The contract, which was awarded to Altergo by

Ketron Inc of Pennsylvania, is believed to be that

negotiated earlier this year as the first under the NCC's Interlock scheme (Software File, January

Valued at around £90,000, this was announced as an unspecified technical writing job. Altergo however, would neither confirm nor deny the

Dr David Freeman of Ketron told Computer

all day, I go to the client and take linking a distributed network to easy to work for and because I then follow the whole thing larger users will maintain their than the work in Ramis, which means then follow the whole thing larger users will maintain their than the trings can be changed databases on a bureau because without any fuse if somebody then follow the whole thing databases on a bureau because without any fuse if somebody does change his mind, but I analyst—even salesman and affords them that the life is much that the bureau industry can't out because they have to re-do more coordinated for the client," and micros for the smaller lew weeks—just because the applications; but will continue client changes his mind. And, on

dient is usually a DPMI
John has been with UCSL for
about three years and thinks he
will probably stay in bureau takes a fraction of the time that now when staff are so hard to they would take in a non-database environment.

It's the flexibility this gives the user that really counts.

When I worked in PL/10r Cobol, I might take two or three weeks to write a program and then another two or three when the user changed his mind about the sinformation be wanted.

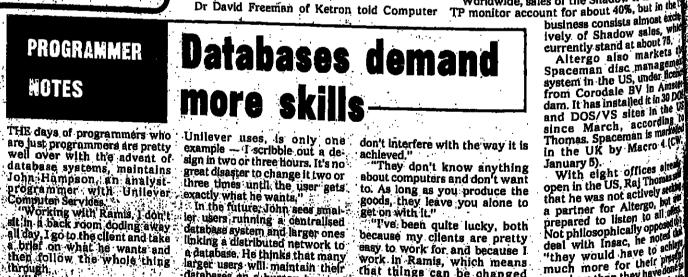
Accountants are a much malgned breed. They certainly not the place to be in the system exactly what they want out files and is usually a DPM.

John has been with UCSL for about three years and thinks he will probably stay in bureau work for a long time to come. In a bureau, time literally is money and so you are considered them are not nearly as clear about what they want.

Accountants are a much malgned breed. They certainly not the place to be in the system exactly what they want out fileked!

Another significant operation is Altergo's c training school in Dubli two years ago (CW, October 1976): The school currently is about 120 students, mostly the Arab countries.

members than they have far before we would be



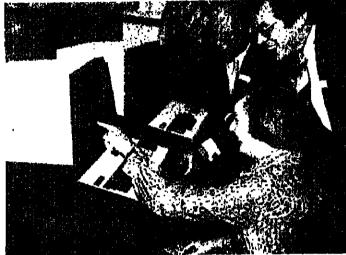
Digico launches a teaching system

Tutor has been introduced by Digico. It consists of a choice of hardware based on a Digico M16 series processor, an 11 Megabyte disc, and up to 16 Regent VDUs, together with a suite of Basic programs for the construction nd operation of courses.

The system includes no course

displayed at the end of the ses-One program is used to run

material: Digico intends students' sessions while another teachers to design all this them- allows the teacher to input the selves. Courses can consist of course material. This includes text, multiple choice questions, the text, the questions, the right



ducation Socretary Shirley Williams has Tutor explained to her by Ken Atkinson, Digico marketing director. Looking on is David Harington,

Second order for Manman

manufacturing management system, Manman, has come from Oxford Electronic Instruments, manufacturers of medical eletronic equipment. 1000 with a 50 Mbyte disc store which will use it to store and and four VDUs.

THE second order for Scicon's process information relating to stock, sales and the delivery of its goods. Valued at £65,000, the system ordered consists of a 128K Hewlett-Packard System

answers the student gives.

other applications, such as ad-A count is kept on the number of right and wrong answers ministrative tasks, while Tutor given, together with the mean is running. time to answer, and these are

Tutor was demonstrated to Mrs Shirley Williams, Secretary of State for Education, when she visited the company's Stevenage. Herts, plant to present a Design Council award. This was for the M16E mini, a 16-bit word machine which uses a microprogrammed processor instead of random logic, enabling the number of chips needed to be reduced from 400 to 180.

 Digico has also scored in another area. Seven of its 1602 communications systems have peen, ordered for the British Library's Merlin online book catalogue project. The £150,000 order includes 40 Rogent VDUs which are being installed in London and at Boston Spa, Yorks. These will provide access to Computel's ICL 2960 at Bracknell which at present car-

Basic, the system can be used for

Leo staff reunion is planned

A REUNION of staff who worked for Leo Computers during the 1950s and 1960s has been proposed by one of their number who now works for ICL, and he would like to hear from others to see how much interest there is in such a gathering.

Roy Farrant, now an ICL sales manager, says that Roy Farrant, now an ICL sales manager, says that informal get-togethar was field some time ago, an informal get-togethar was field some time ago, attended by 80, so he thinks a more organised event

Scots firm introduces a security system for North Sea oil rigs

Systems of Aberdeen, using terminals from another Scottish firm, Fortronics. The system keeps track of the movement of staff between shore bases and oil rigs, checking on authorisation to protect against possible terrorist attacks and recording information on staff as required by law. Oil rigs are considered to be

prime targets for terrorists. All staff are issued with magnetically-encoded identity cards carrying a photograph. Before boarding, the helicopter to fly to the rig, they insert their cards into a terminal, which checks that they have been authorised to travel. On arrival

A PERSONNEL security system at the rig, the cards are inserted for North Sea oil rigs has been in another terminal, so that a producing payrolls, introduced by Rockall Data constant check is kept of

everyone's whereabouts. This information is also important in the event of accident or emergency. The sys- a controlled environment w tem can be expanded to record

In a separate move, Rockel has opened a secure data centre : in St James' Street, London, for storing tapes and other media: protection against theft.

hours worked as well, to help z

GA wins chemical contract

TO help it maintain high ment comprises 16 GA 40 standards of quality in its acry- microprocessors, two 16K (2) lonitrile and hexamethaline tral processors, a 600 h diamene (raw nylon) manufacturing process, Monsanto, the UK subsidiary of the US chemical giant, has installed a General Automation data logging system at its Seal Sands, Middlesbrough plant Valued at £130,000, the equip-

nvion for laboratory analys and logging the details of the

printer, a matrix printer, two

Mbyte disc drives, five Wi

UK services company goes into PoS market

ket, Pritchard, Brown and Taylor, the UK and the other to Woking-based Garage market research and computer services Management Services, the parent company

Based on Computer Automation's Naked bureau basis to petrol stations. terminals, Salepoint is a distributed system Computer Automation Naked Mini, but this developed by PBT, and this include com-Mini and programmable Datapod 2000 PoS

Pritchard, Brown and Taylor has also

company, has announced details of its Salepoint PoS system. Initially, the GMS system will use one 32K

aimed both at the top-end, supermarket-size eventually will be expanded into a dual organisations and the smaller retailer who processor system to handle additional terrequires just a few terminals.

Value of the two orders is put at about announced that two Salepoint systems have been sold already: one to the British Market terminals, the quantities of which have yet looking at the possibility of running and polling. PBT is an announced that two Salepoint systems have been sold already: one to the British Market terminals, the quantities of which have yet

Applications which PBT envisages Salepoint include stock control, sales and lysis, VA1 accounting, and managent rmation/financial reporting. It carsis analyse customer payments into cash of card or cheque categories.

All software for the system has in munications software for automotic over night polling of terminals and count ware for the handling of multi-term accessing, signal errors and failed territor identification and polling, PBT is at

und three teletypes. The testing procedure a volves taking samples of av

IBM's new head of Office **Products**

SHORTLY after announcing that it is studying the possibility of making its General Business Group a worldwide subsidiary. IBM has changed the man at the top of its Office Products Division, one of the two main divi-

sions of the group.

The new president of OPD is Richard Young who was vicepresident of communications the top public relations job at IBM. He takes over at OPD from James Forese who is now IBM's assistant treasurer.

The IBM study that could lead to General Business Group being made a worldwide subsidiary will take several months to complete, according to the company, and will include the US and the 21 other countries that have GBG organisations.

The other main part of GBG is the General Systems Division, which sells the System 32, System 3 and System 34 small business configurations and the Series 1 minicomputer. The latter represents one of several areas of conflict between GSD and IBM's DP Marketing Group which sells mainframes and network equipment, because Series I is offered by GSD as an alternative to the DP Marketing Group's 3790 distributed processing system for use in SNA net-

The Office Products Division has become one of the less pro-fitable parts of IBM over the last few years and in 1977 it returned an operating profit of 9.4 per cent margin achieved by IBM as



ine answer is a lemon

ON a floodlit bill board, perched above the rooftops of St Louis, Missouri, a massive placard delares, "Our IBM computer system is a Lemon," and it is signed "A Dissatisfied Customer." To mphasise the point the sign is justrated with a large lemon. According to a report from the States an IBM spokesman said, "We know it's up there. We don't know who put it up . . . but we are

trying to find out. We'd like to sit down with him and discuss the

Later the company said that it knew who the user was but wasn't letting on. It added that General Systems Division personnel, the people concerned with Series 1 and System 3, were resolve his difficulties in a

First new Criterion in UK

CITY commodity trader J H Rayner is replacing its six-year-old NCR Century with a 128K NCR Criterion I-845, the first to be installed in the UK. The new system, costing £200,000 includes seven VDUs and two 300 lpm printers. It will provide online trading information, and New York and Amsterdam offices are to be linked to it shortly.

Mass storage system installed at Tesco

IBM 3850 mass storage system installed at the headquarters of the Tesco supermorket group, Cheshunt, Herts. Each compartment in the honey comb array holds a magnetic tape cartridge with a capacity of 50 Megabytes and a data set recorded on my of the contridges can be accessed in 10 to 15

The availability of the mass storage system from IBM was one of the main reasons for Tesco's decision to switch from ICL to IBM inst year (CW, November 17, 1977). Other reasons listed by Tesco were the high speed printing facilities provided by the IBM 3800 laster printer and the "systems availability" possible from the MVS operating sys

Tesco says that MVS was chosen in preference to ICL's VME/B because it had far fewer unpredicted breaks than VME/B and could handle a much more

ICL to correct these shortcomings.

Tesco's data processing plans include the implementation of an SNA network which will involve about 10,000 terminals located all over the UK when it is complete in about 10 years from now. About 8,000 of the terminals will be PoS units nstalled at Tesco supermarkets.

One of the two mainframes ordered by Tesco from IBM, a 3032 that has already been installed, is the first 3032 in the UK, and the other machine, a 3031, will go 700 ICL programs to IBM is expected to be 90 per cent

An engineer is pictured installing the IBM 3850 mass storage system at Tesco's Cheshunt head-

US 'word machine' based on the 360

word processor is to be introduced in the US by a computer leasing company, partly as a way of using up its outdated

DPF Inc of Hartsdale, New York is now testing its "Word Machine," which typically uses a 360/30 as CPU, 3330 disc storage, and between 10 and 50 specially designed intelligent

terminals as typing stations.

The software will run on any 360, 370 or Amdahl machine, and provides a word processor of considerably greater power than any currently available.

With a big CPU, there is virtually no upper limit to the number of terminals that can be used, but the system would not be economic with fewer than 10. Each terminal has a Diablo daisy wheel printer attached to

it. but other IBM peripherals can be used such as the ultra-fast laser printer or a COM recorder.

on the mainframe and read into cations. the terminal when required.

This means that there can be a very large range of functions available - over 100 different programs at present. The screen s 64 lines by 80 characters, with sideways scrolling up to 200

characters. Incorporated in the mainframe software is an automatic indexing system that enters every non-trivial word in a locument into a giant inverted

Retrievals using Boolean logic can be used to find documents long after they were written. The link-up with COM could be useful in connection with this, as purges could transfer documents that are no longer needed online on to microfilm automatically, while keeping

their indexing on the computer. Automatic indexing for microfilm is a subject in which there is considerable interest,

Costing between \$150,000 and \$214,000 for a 10-station system.

the Word Machine is not cheap, but it may form the beginnings of large-scale communicating Electronic Office systems. As well as Kodak, an unnamed

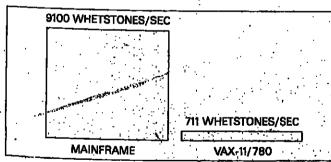
US government office is now testing the machine.

Export services handbook

TO aid existing and potential exporters of both products and services, the British Overseas Trade Board has published the Export Services Handbook guide to government and nongovernment facilities. The book costs £2.50 plus 30p packing and postage, and is available from the Publications Sales Unit Each terminal has its own Interest there is considerable interest, BOTB, Export House, 50 and Kodak is already testing the Ludgate Hill, London EC4M.

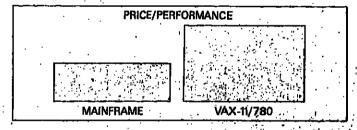
And wins two rounds out of three.

Round one to the 60 bit mainframe: Speed. The mainframe is still the speed champion with 9100 Whetstones per second.

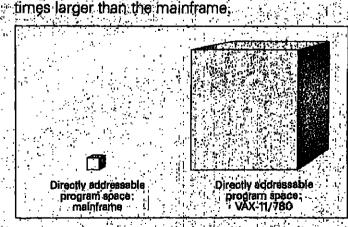


Round two to VAX: Price/Performance: The 32 bit VAX is the world's fastest mini. A VAX system runs 711 double precision Whetstones. That's one twelfth the speed - at one twenty-fifth the cost. A dozen VAX systems could equal the throughput of the mainframe system -

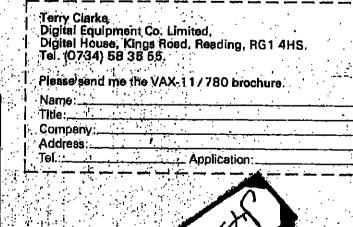
and you'd still save literally millions of dollars.

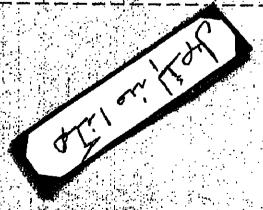


Round three to VAX: Program size. Virtual addressing and a gigantic 32 bit address size, compared to the 18 bit address size of the mainframe, allows VAX a directly addressable program size that is - are you ready? - 1000



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President of BEAMA for 1978/9 elected

Electrical and Allied Manufacturers'
Association, BEAMA, is Michael Parkinson, chairman and chief executive of Crompton Parkinson

He has also been a director of Hawker Skideley Electric since 1978 and of Hawker Skideley Group since 1971. During 1970/71 he represented Hawker Siddeley Electric on the REAMA Council

Harry Jackson, a director of GEC Management, was appointed deputy president of BEAMA.

Chris Wood, who was sales and murketing director at BOC Data-tolve, has been appointed managing director. Roger Wallhouse has been promoted from marketing manager to marketing director, and Cyril Banyard, previously deputy managing director, becomes deputy chairman. Doug Eyelons, previously director of external relations. assumes the title of technical direc-

John Washington has been pro-moted to European software deve-

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in-depth appraisal of developments and innovations in

and Jim Whitfield to European tech-nical support manager. Both were previously European technical sup-

Denton Smith, managing director been appointed to the board of the parent company, the Barr and Wal-ace Arnold Trust, with effect from

Chris Crawford, a director of Pan-sophic Systems' UK subsidiary, has

Europe. He will be based at the European HQ in Holland.

privacy and sacurity, the latest advances in products and services, and technological trends in the computer field.

AT&T, Honeywell, CSC, General Automation, Perkin Elmer and 3M are some of the companies which will be exhibiting at the Exposition.

Washington

conference

Further details and registra-tion forms can be obtained by writing to Federal Compute Conference, Box 368, Wayland Mass 01778, USA.

Michael Spanner, until recently inles manager of Geveke Electronics, has been appointed UK

Kenneth Dibben has been appointed to the board of the Kalamazoo Group as a non-executive director. He left Hambros Bank, where he was a director, ear-lier this year to devote more time to his private business consultancy

Cheryl Pink, formerly a sales representative with L'Oreal, Cella Forrest, who was an air stewardess with British Midlands Airways, and Jan Roberts, previously a sales representative with A. B. Dick, form the new team at CPU Computers which will market the System M-One small business computer in the South-East, Venetia Weston-Webb, formerly a press officer with Shell me marketing administra-





THE twenty-second International Operationar Data Security Workshop, organised by Operational Data Security Corp, will take place at the City University, London, England on August 21-24. The subject will be continuity and credibility of the data processing function. Register, with the Register, Corralional Data Security Corp. 6 Swar-Indional Data Security (US) (618) 499-1618.

coat trip. Association of Independent Computer Specialists, From Tower Pier, London, 19.00. Tickets 25.00 from AICS, tel; 01-437 0678. AUGUST 21-34 Ones ticket APPLICATIONS of machine-sided image analysis is the titin of a conference to be held in the Nuclear Physics Lab of Oxford University on September 4:8 and sponsored by the Institute of Physics, Purther details from the Conference Sepretary, Dr. David J. Stanley, B521, Harwell Labbraidty, Diddot, Oxfor OX11 ORA, (el., Abingdon (0238) MM [axt 5082.

THE seventh IEEE Computer Society international conference. Compcon 78, will take place on September 5-8 at the Caritat Hilton Hotal, Washington DC. (is "subject will be computer communications helworks: For details contact Compcon Pail 78, P.C. Box 639-17, Silver Spring, MD. 2090; ref. (301) 439-7007.

Technology, Blackburn, Lei. 2254 64321.
AUGUST 2248.
Configrence on parallel processing, BEE. Computer Society/Wayne State University, Bellaire, Michigan, USA.
AUGUST 23.
Meeting. VM UK and Ireland Users.
Group. Maidenhead. Details from Iain Stinson on 01-889 8111, ext 2700.
AUGUST 23.25.
Siggraph 78, 18th conference on computer graphics and interactive techniques. Association for Computing Machinery, August. 16 Computer Society, Canberrs.
AUGUST 28-SEPTEMBER 1.
Eighth Australian Computer Society, Canberrs. THERE will be two consecutive conferences on the subject of computer-sided design in Bologna in September. Introduction to CAD-CAM will be held on September 18-30, and interactive Techniques in Computer-Aided Design on September 21-33. Bolo have been organised by the Italian Chapter of AOM Association for Compating Machinery. Further information sean be obtained from the Conference September (AD Conference, c/o Glorgio Valle, published the Elettonica, Facolita di Ingegnaria, Università di Bologna, Visita Risrigimento 2, 40138 Bologna, Italy, tal. 31,832-35. AUGUST 29 AUGUST 28

Jackson design technique, management tutorial, Marcus Bromberger. Dept of Computer Science, University of Strathclyde Glassow, 9.30 Details from the Continuing Education Office at the University, 1et 941 462 4400, ext. 2122.

SEPTEMBER 4-5

Medical Informatics Europe, congress. Suropean Federation for Medical Computing Cambridge.

A WORKSHOP on the theory and application of Futzy Reasoning will be given by Professor L. A Zedeh on September 18 https://doi.org/10.1006/j. London: Further internation from Dr. E. H. Mamdani, Dept of Electrical and Electronic Engineering, Ouesn. Mary Gollege, Miller End Read, London E. Hys. ed. 373 or 36.



the US company Merck's board of directors and its president and chief executive officer, has been appointed a director of NCR.

Eric Sutton, previously a person-nel manager with Univac, has joined Hoggett Bowers Selection as a consultant in the Londor

Terry Carter, of Redifon Computers, previously development manager, has been appointed en-gineering manager. Dave Hart, who was product engineering manager for Seecheck, has become product manager, engineering at Redifon.

Ian Griffiths joins Trent Polytechnic's computing services department as systems manager from York University where he was a systems pro-



AUGUST 6-9

AUGUST 9
Boat trip. Assoc

AUGUST 21-25

Operational Data Security Corp. City University, London EC1, Register August 18: 01-253 4399; ext 347.

AUGUST 21-28
Cybernetics, and ayslems fourth inter-national congress. World Organisation of Gararii Systems and Cybernetics, Amsterdam Detalls Dr J. Res., College of Technology, Bischburn, tel: 0254 64321.

Peter White, sales manager of Alacra, has been promoted to sales **Calls for papers**

Eamonn Cooper has joined Insight Marketing and Personnel Consult-

consultant. For the last year he has been running his own restaurant, the

Pot Pourri, and before that was head

organisation and methods with

ants in Dublin as senior personn

PAPERS are solicited for the 1979 international Symposium on Fault-Tolerant Computing, to be held in Medison. Wisconsin on June 20-22, 1979. It is sponwisconsin on June 20-22, 1879. It is sponsored by the technical committee on fault-tolerant computing of the IEEE Computer Society. The deadline for receipt of a 200-word summary in four copies is November 1, and it should be sent to the Program Chairman, Gerald M. Masson, Dept of Electrical Engineering, Johns Hopkins University, Bajtimore, Maryland 21218.

A CALL for papers has been issued by the Japan Society of Applied Physics, organ-isers of the 1979 International Conference isers of the 1978 International Conference on Solid State Devices, which will be held at the Tokyo Chamber of Commerce and Industry on August 27-29, 1979. The deadline for summaries is March 31, 1979. Details can be obtained from: 1979 International Conference on Solid State Devices, Japan Society of Applied Physics, Kikai-Shinko Kaikan, 3-5-8, Shina-Koen, Minato-ku, Tokyo 195, Japan.

versity. Stanford, California. SEPTEMBER 12 Computer programs for pro



Scanner fund

THE Walsgrave Hospital, Covent scanner appeal fund (CW, Sep tember 1, 1977), which evoked a

unprecedented response from the people of Warwickshire, has not

The fund's total was way over target at about £410,000, plus to additional £100,000 from the West

Midlands Regional Health

Authority.
The hospital has been able to by not only a £380,000 Elscint body

scanner, but two extras: an indepe

dent viewing system and a multi-imager which puts the results on to

ture machine updates and the training of hospital staff in the und the muchine.

Liveware Sago

X-ray film. And this still leaves a ough to pay the £20,000 installation costs and have £100,000 left for in-



THEY STICHES THERE RESERVE BALLATT

alla.

. THE METEOROLOGICAL

AND MAVICATION

COMPUTER!

10.00. Details APM, 01-799 3182.
Computers and the unions. Clive Jenkins. BCS 1878 Lecture Series. London School of Economics, London WC2. 19.30.
How do we use it?—how to monitor and control the day to day running of the system. Albert Stacey. BCS Group for New or Potential Users. Royal Angus Hotel, Birmingham. 14.00.
SEPTEMBER 12-14
Computers in cardiology conference. SEPTEMBER 13 Meeting, CMC Users' Association (CUMAC): ITT Ltd. Saxon Motel, Harlow, Essex. 10.30, Details: Maidenhead 29525. Very Large Databases, conference. IEEE Computer Society/ACM/SM(S. ... WHO GOT LOST WHEN

SEPTEMBER 18-22 Jackson design technique, workshop.
Marcus Bromberger. Dept of Computer.
Science, University of Strathciyde. Glasgow. 930. Details from the Continuing Education Office at the University, tel: 041-552 4400, ext. 2132.
SEPTEMBER 14.
Getting cont.

Getting cost control accepted, seminar, Association of Project Managers/ Association of Cost Engineers, Belfry Hotel, Manchester, Details; M. H. Drake, 081-228 2011

CAD/CAM, Computer-aided design and quantifacturing conforence and exhibition. Computer and Automated Systems Association. Los Angeles. SEPTEMBER 20. WE/K subgroup meeting 2800 User Group. National Liberal Club, London. SW1, 10,30.

SEPTEMBER 21-23 Suropsan Federation for Medical Computing Cambridge in computer added design. IEEE Computing Surprise Section Surprise in computer added design. IEEE Computer Surprise Surp

Gasmen look at array processor

AFTER using a Univac 1106 for eight years, British
Gas London Research Station needs greater capacity

Which can vary five per cent with a one degree
Centigrade change in temperature.

The LRS aims to keep abreast of techniques used in the oil industry and has looked at several array rocessors such as ICL's DAP, A larger Univac

processors such as role a DAP. A larger Univace machine has also been considered.

Software developed at the station for analysis and prediction of gas field development, and distribution network planning was demonstrated last week, to celebrate 50 years since the laboratory came into existence as the Fulham Research Laboratory of the es, Light and Coke Co

A new program called Grasp is used for assessing different strategies of gas and oil extraction in the North Sea and Irish Sea gas fields.

Another program run on the 262K 1106 system uses weather reports to predict demand for gas,

bandwagon of those expostu-

lating on the social impact of

computers is the Fabian Society.

vhich has published a new tract

entitled "The computer and

society" by Tom Crowe and

John Hywel Jones, both of the

NEWS IN BRIEF

A DECORATIVE poster, depict-

ing the evolution of computers as a tree with many branches,

has been produced by Manage-

ment Information Corp. Each

branch shows a different history

making machine such as the IBM 607 in the 1950s, the 7094 in

the 60s, the System 360 starting

in 1965 and the System 370 in the

£135,000 order

Copies at \$15 each can be ordered from MIC at 140 Barclay Centre, Cherry Hill, New Jersey

ELECTRICAL and mechanical

turnkey contracting subsidiary of the Hawker Siddeley group,

Hawker Siddeley Power En-

gineering, has purchased three Burroughs B800 systems worth £135,000.

Logabax at Oscott

REPLACING conventional cash

registers, three Logabax LX4600 lisc-based systems have been

installed by Oscott Equipments,

Birmingham-based car parts

cash and carry company. Valued

at £55,000, the systems will produce on-the-spot detailed in

voices, handle stock control of 250,000 items as well as payroll, general accounting and label

ONLINE policy registration has been added to the services pro-

vided by CMG's Croydon bureau

to Europ Assistance, the

Croydon-based travel Insurance

specialists. In response to client

tails of policies via Burroughs VDUs linked to CMG's Bur-

THE number of key-to-disc systems from Redifon Computers

installed with various Greater

London boroughs will soon total

15. Johnwing orders placed by the London Borough of Hillingdon and the Corporation of London. The two orders are worth about £90,000.

THE first UK order for the low-leost Digital Equipment DECsystem, 2020 main frame

March 2), has been placed Powell Duffryn Computer stylces of Basingstoke which will use the machine to run

le online production control

First UK order

Redifon scores 15

duction etc.

roughs B4700.

Online policy

Historic

poster

Fabians fail to

of Thames Polytechnic.

Sadly, the mists of confusion

and ignorance surrounding this

important subject are in no way

cleared by this pamphlet; rather

they are made worse by hys-

Understanding of the pam-phlet is inhibited at the initial

level by a mass of misprints and

illiteracies. Having waded

through these, one is next struck

by a mistake that is commonly made by lay people but is sur-

prising coming from professio

nals: the anthropomorphising of computers, as if they were allen

invaders who walked and talked

"Man must not allow the

computer . . . to define its own

role. Like some allen force, it

has gradually digested a major part of our records. The com-

puter needs to be brought under

This vision of machines taking

over the world, emanating lar-gely from Samuel Butler, has long been discredited as people

have become aware that

machines are only extensions of

A spade is an extension of the

arm of the digger; a computer is an extension of the brain

and hand of the programmer.

interestingly enough, one of

the first authorities the Fabian

authors rest their argument on

The pamphlet proceeds to ex-

pound on the enormous changes

that computers could wreak on

our society over the next 30

years, claiming that at present

these changes are outside the

control of people.

The authors' agonising is

accompanied by various inaccuracies and self-contradictions.

For instance, they ask: "How can the rational scientific tradition of socialism help us [to fight these dangers]?" Then they quote Marcuse attacking "tech-

nological rationality" as an evil. Several courses of action are

proposed to increase control

over the development of com-

puter technology, mainly con-

cerned-with freedom of Infor-

Authority to cover "social

impact" and "the dehumanising

effect of the use of computers in

a social context." where pre-

sumably it would have power to

ban developments. How it would

judge "dehumanising effect" is

more sophistication about com-puters, to avoid being misled and

to make sure it gets what it

Alternative •

Daisy wheel printers can now be used on the Kalle Infotes

be used on the Kalle Infotes 7000 word processor as an alternative to the IBM golf ball printer. A new model, the Infotes 7000 Q. Incorporates a Quine printer and costs £4,525. Existing units can be upgraded for about £2,000. Kalle Infotes

word processors are marketed in the UK by Dataword Equip-ment.

The public has serious need of

not specified.

One is to extend the brief of

proposed Data Protection

among us.

control."

the human body.

is Samuel Butler.

terical and muddled thinking.

The station developed its own hardware monitor, which shows that 80 to 90% CPU loading has been The station plac uses three minis as parts of

The athtion biso uses three minis as parts of analytical instruments. An X-ray fluorescence apec trometer from Link Bystems, based on a Data General Nova 2, is used to identify elements present in a sample of any material. As well as pinpointing the main elements in seconds, it can detect minute traces of other planets within helf or hour parts. of other elements within half an hour non-

estructively.
A 32K Philips 852M controls an X-ray diffractometer for identifying crystolline compounds in a material and a Varian 311A controls a mass spectrometer and a gas chromotograph used together in

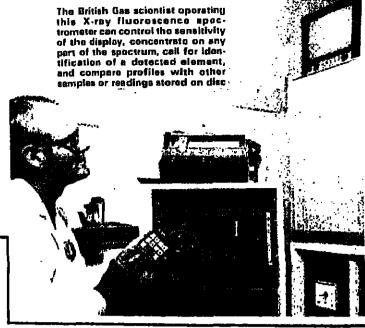
perts want. Unfortunately this

pamphlet makes little construc-

*The computer and society, by

Tom Crowe and John Hywel Jones, 18pp. 50p. Fabian Society, 11 Dart-mouth Street, London, SWIH 9BN.

tive contribution to that aim.



clear the DP mists First products released

A TACTICAL communications management system, and rug-gedised terminals for industrial environments are among the first products from Systems Production, a new company ufacturing mini and micro based computer systems.

The new company RORY JOHNSTON associated with Systems De-ness.

companies are owned by the holding company, Systems Dcsigners International

Housed in a new, purpose-built 7,000 square foot factory in Farnborough, Hants, the company is siming for a turnover of £880,000 in its first year of busi-

Insight into the costing of data processing

AN insight into how accountants cost data processing is provided in a 94 page booklet. The cost control of data processing. It was written by a group of members of the Institute of Cost and Management Accountants but being written by accountants for accountants should not deter other readers. Indeed the sections on charging out could be very useful for the DP

manager.
The book begins with the cost justification and evaluation of DP proposals. Cost control of the DP department and project development occupies a further 35 pages of useful information. The final chapters are concerned with charging out and seven methods are briefly explained.

ICMA has been running a series of courses on "Charging for Computer Services" in con-junction with the National Computing Centre.

The cost control of data processing, £3.94, B. V. Piggott, Institute of Cost and Management Accountants, 63 Portland Place, London, WIN 4AB. Tel: 01-580 6542.

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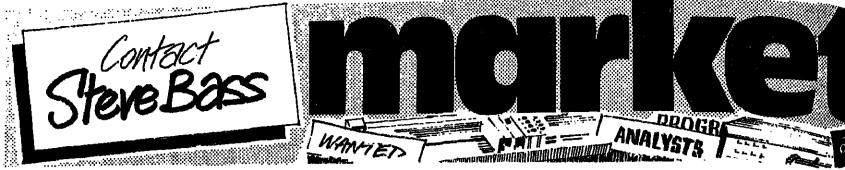
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